Chapter 7

Coaching Collaborative Creativity and Innovation: An Action-Based Method for Sustainable Innovation, Learning and Development in Business Organizations

Shankar Sankaran and Saul Brown

Abstract

Purpose — In an increasingly complex global environment, traditional approaches to strategic thinking and problem solving are proving to be inadequate. Design thinking (a process used by designers) and action research/action learning (processes used by managers for organizational change and development) provide some alternative approaches to overcome the inadequacies of traditional approaches to facilitating sustainable innovation. However, both design thinking and action research/action learning each has limitations. This chapter describes how these methodologies can be combined to overcome these limitations to coach managers collaboratively for creating new and better futures for their organizations.

Approach — After introducing the necessity for new approaches to strategic thinking and problem solving, a review of the relevant literature on design thinking is given, followed by a brief discussion of how action research/action learning is similar to and different from design thinking. Next, a way of combining the two methodologies profitably is explored. Finally, a practical example of these ideas in action is provided, in the form of a small case study in which the

GROUP coaching framework is used to facilitate collaborative and innovative processes among managers.

Findings — A group coaching methodology using design thinking, action research/action learning and collaborative creativity can be used to help managers deal with wicked problems.

Practical implications — We provide a useful framework for organizations to improve the capability of their managers in addressing wicked problems.

Originality/value — This chapter is based on research-led practice implemented in an organization to improve the capacity of managers to use creativity and innovation, and design collaboratively. It also provides a way to include action research and action learning in the creativity and innovation processes.

> The Best Way to Predict the Future is to Create It.
> Peter Drucker

7.1. Introduction

In an increasingly complex global environment, traditional approaches to strategic thinking and problem solving are proving to be inadequate to many of the pressing organizational and social challenges of our time. The increasingly complex challenges or 'wicked problems' — 'unique, difficult to define, and often inextricably linked to other issues' (Martin, 2009a, p. 3) — that organizations and institutions face, require a different approach, one that is less focused on inductive reasoning and analysis to determine 'the one best solution'. Instead, a more grounded, abductive and action-based approach to determine 'what works in practice' and 'how we understand and build on this' is required.

As organizations are confronted by the inadequacy of their traditional approaches to strategic thinking and problem solving, they are turning instead to more emergent and creative approaches. Decades focused on organizational and business efficiency are ceding to a new focus on creativity and innovation. Although efficiency remains important, it is no longer enough to stay ahead of the competition. Organizations and institutions are increasingly turning to the methods used by artists, designers and entrepreneurs in search of better ways of approaching wicked problems and in the hope of being able to create new and better futures. This is evidenced by the recent interest in 'design thinking'. Businesses such as IBM, Apple and Procter and Gamble are reported to be adopting design thinking approaches to design new products and services.

The social sciences, with their reductionist approaches borrowed from the physical sciences, are falling short in terms of providing practical solutions

1   that can be used by organizations to address these challenges. What has worked in the past is not always the best way forward. Action research

3   approaches, although challenged by some in academic circles, have been found to be important alternatives to generating both local and general-

5   izable theory in such complex and dynamic environments. This especially applies to the science of creativity and innovation. Leading academics

7   acknowledge that much of the creative process is a 'black box' (Amabile, 2010). West (2002) states that, 'we are still at an early stage of understanding

9   group creativity and innovation' (p. 378) and proposes the use of dynamic action-based research methods in organizations. Although researchers have

11   identified a range of factors that foster creativity and innovation, no single factor is requisite in any individual situation. The nature of innovation is

13   that most attempts at innovation fail. Some innovative organizations have embraced the mantra of 'fail often and fail early'. Such an approach to

15   innovation is based on learning from each failure and moving from each a little closer to better knowledge, better understanding and better outcomes.

17   Creativity and innovation require a learning mindset. West (2002) specifically identifies reflexivity as a predictor of innovation. The ability of

19   individuals and groups to enact an action learning process, described by West as 'reflect, plan, act, and adapt', predicts innovation outcomes. Action-

21   based methods such as action learning, action research and action science have much to offer organizations, institutions and communities looking to

23   better achieve sustainable innovation, learning and development. Action research also has much to offer in developing useful research outcomes and

25   in bridging the gap between research and practice in organizations, particularly when it comes to creativity and innovation.

27   The facilitation of collaborative creativity and innovation processes and reflexive action enquiry requires skilled leadership or, as we will argue in this

29   chapter, skilled 'coaching'. The emerging evidence base for coaching as an enabler of sustainable innovation, learning and development within

31   organizations, we believe, makes an important contribution to an understanding of the role of the leader, facilitator or 'coach' of such group

33   processes. Skilled coaching has been identified as important to fostering successful collaboration (Hackman & Wageman, 2005), collaborative

35   creativity and innovation processes (Basadur, 2004) and, we believe, makes an important contribution to the understanding and adoption of action

37   research processes to deal with complex and new situations.

    In this chapter, we present a model for coaching group creativity and

39   innovation processes based on our previous work and Brown and Grant's (2010) model for group coaching in organizations. This model integrates the

41   group coaching process, creativity and innovation processes, and action enquiry processes. We believe that these three approaches can build on each

43   other to achieve desired outcomes. Based on our own coaching work,

conducting such processes within organizations and teaching these processes to executive students at leading Australian business schools, we believe this approach adds to the understanding of how organizations can better achieve sustainable innovation, learning and development.

In the following main body of this chapter, we review the literature on (1) the need for more creative approaches to business development, (2) design thinking in business organizations (definitions, processes, criticism and teaching of design thinking), (3) design thinking compared to action research and action learning, (4) collaborative creativity and (5) coaching as an enabler of creativity and innovation, with an example and emphasis on group coaching.

7.2. The Need for More Creative Approaches

The increasing complexity of organizational environments and the increasing rate of change (political, economic, social and technical) is cited as a key factor in the shift towards different ways of viewing problem solving and strategy. The simple problems have largely been solved (Camillus, 2009). According to Martin (2009b), the days of leaders applying well-known rules and linear logic to solve pressing problems are gone. Since organizations cannot effectively model the increasingly complex environments in which they operate, their traditional strategic planning and problem-solving processes are of limited utility. Further analysis, additional data collection or breaking down the problems into smaller pieces are also of limited use with complex issues (Camillus, 2009). Instead, Martin (2009b) uses the term first coined by Professor Horst Rittel in the 1960s — 'wicked problems' — to describe many of the complex challenges facing our organizations and society. Martin (2009b) emphasizes that different approaches to strategic thinking and problem solving are required, and suggests that collaboration between various stakeholders with diverse knowledge and experience also becomes increasingly important:

> Wicked problems call for us to harness all of the creativity and knowledge at our disposal. By working to enable a shared understanding and commitment, we have the collective power to shape our organizations — and our world — for the better. (p. 3)

Carlopio (2009), in his review of the different schools of strategic thought, finds that there is little focus on the generative process of strategy design. The overall strategic process of '(1) creating strategy, (2) evaluating and choosing strategy, and (3) implementing strategy' (p. 2) actually offers little detail on

how to develop or create strategy at the frontend of this process. In Carlopio's view, strategists 'seem to assume that strategies are somehow created and they focus on evaluating and choosing strategic options or on change management and strategy implementation' (p. 2). Instead, he turns to the design profession for approaches to new idea generation and problem solving that can be applied to the generation of organizational strategy.

7.3. Design Thinking in Business

Attention is increasingly being given to alternative approaches to strategic thinking as traditional approaches fail to yield effective solutions. A number of researchers and practitioners have recently turned to the world of creativity and in particular what they term 'design thinking', in search of new approaches better suited to wicked problems, new idea generation and innovation (Brown, 2008; Carlopio, 2009; Dorst, 2010; Martin, 2008).

Traditionally, design was considered a downstream activity in business to make products and services more appealing to customers. In some industries such as consumer goods and automobiles, design has been a core point of differentiation for some time, but in most design remained a late add-on (Brown, 2008). Now, with broader adoption within some organizations, design thinking is being applied not just to new products and services, but to all types of business challenges: new technologies (Brooks, 2010), new organizational strategies (Carlopio, 2009), new ways of collaborating and communicating (Brown, 2008), new business models (Martin, 2009a) as well as to wicked problems (Martin, 2009b).

Brown (2008) describes the design process as, 'a system of spaces rather than a predefined series of orderly steps' (p. 88). He calls the three spaces: *inspiration*, where problems or opportunities are identified; *ideation*, where ideas are generated, developed and tested; and *implementation*, where ideas are launched into the system for which they have been generated. This is not a linear process. Projects often move backwards and forwards between the stages before being successfully implemented.

According to Martin (2008), the core skill of design is 'the ability to reach into the mystery of some seemingly intractable problem … and apply the creativity, innovation and mastery necessary to convert the mystery to heuristic — a way of knowing and understanding' (p. 13). He sees design skills and business skills converging; the era of 'improvement', or getting better than your competitor as a source of competitive advantage, coming to an end; and businesses having to 'get different' as well as 'better'.

A shift to design thinking will require new ways of thinking. The deductive and inductive thinking commonly applied to traditional organizational strategic planning and problem solving needs to be supplemented with

1 the abductive reasoning common to designers. Abductive reasoning involves generating a number of possibilities for trial. The philosophy of designers is
3 'let's try it, prototype it, and improve it' (Martin, 2008, p. 13). Designers learn by doing, whereas traditional organizations spend large amounts of
5 time and money searching for the one 'best and/or right' solution that might never become apparent or might always seem 'not quite right' due to a
7 number of constraints. For designers, ideas evolve out of action and constraints increase the challenge and excitement (Martin, 2008).
9

11 ### 7.3.1.   *Definition of Design Thinking*

13 Brown (2008, p. 85) defines design thinking as a discipline that 'uses the designer's sensibility and methods to match people's needs with what is
15 technologically feasible and what a visible business strategy can convert into customer value and market opportunity'. Cross (2010, p. 100), who has been
17 involved with a series of seminars on design thinking since the first one in 1991 at the University of Delft, describes design thinking as 'comprising
19 abilities of resolving ill-defined problems, adopting solution focused cognitive strategies, employing abductive or appositional thinking and
21 using non-verbal modelling media'.
     Dorst (2010), who organized the eighth Design Thinking Research
23 Seminar at the University of Technology in Sydney in 2010, states that designers think *abductively* as opposed to *inductively* or *deductively*. Crabtree
25 (2010) summarizes Charles Peirce's thoughts on abduction as:

27   … the process of forming an explanatory hypothesis. There
            are three kinds of reasoning, he adds: induction, deduction,
29   and abduction… . According to Peirce, neither deduction nor
            induction originate any fundamentally new knowledge in
31   science; only abduction can do that. (p. 3)

33   Thus, abduction is the key to creating new knowledge. Martin (2009b, p. 65), who also believes abductive thinking is essential for design thinkers,
35 adds that the value of deductive and inductive reasoning should not be ignored.
37   Dorst (2010) clarifies that although induction and deduction are useful for explaining what already exists in the world, abduction helps us to create
39 valuable new things as well as knowledge and understanding. He classifies it into abduction-1 and abduction-2. Abduction-1 is the kind of problem
41 solving used by engineers and designers. However, in order to be proficient in design thinking, one needs to be proficient at abduction-2, which is a
43 combination of simultaneous induction and abduction-1 thinking. Thus, a

1 combination of reasoning methods, driven by abductive reasoning, is important for design thinking.
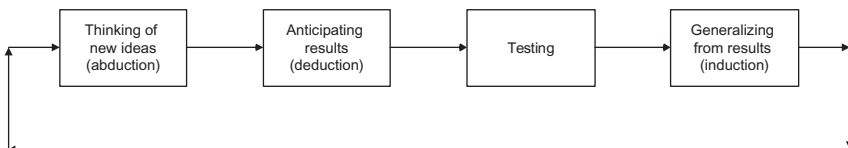
3 Dunne and Martin (2006) propose a cycle of design thinking that includes the three modes of reasoning shown in adapted form in Figure 7.1.

5

7.3.2. The Process of Design Thinking

9 Martin (2009b) describes three essential components of design thinking: '(1) deep and holistic user understanding; (2) visualization of new possibilities, prototyping, and refining; and (3) the creation of a new activity system to bring the nascent idea to reality and profitable operation' (p. 88). Lockwood (2010) further elaborates the process of design thinking, by considering it to be a 'human-centred innovation process that emphasizes observation, collaboration, fast learning, visualization of ideas, rapid concept prototyping and concurrent business analysis, which ultimately influences innovation and business strategy' (p. xi). He adds that the first step is to get a deep understanding of customer needs by getting out in the real world and using observational research and ethnographic methods to understand, but not to persuade customers to accept a predesigned solution. The second step is to work with customers and multidisciplinary teams to achieve radical innovation, and not just incremental improvement. The third step involves accelerated learning through experimentation using simple prototypes to get clear feedback. The power of visualization is the fourth step to provide the context and good communication. Steps three and four are interrelated. The fifth step is to carry out concurrent business analysis and not wait for it to be done as an afterthought.

27 Based on the discussions so far and a summary of design thinking presented by Kimbell (2009), who carried out an extensive literature review on the topic, the essential aspects of design thinking relevant for further discussions in this chapter can be summarized as follows.

31 Design thinking is often used to generate new concepts and new knowledge by resolving paradoxes between various discourses in a design situation. The mode of reasoning used primarily is abduction, although induction and deduction do play a part. Design thinking requires balancing

Figure 7.1: The cycle of design thinking.
Source: Adapted from Dunne and Martin (2006, p. 518).

1 convergent and divergent thinking, looking for new possibilities, rather than choosing among available alternatives. It is very effective in addressing ill-
3 structured or wicked problems, which often evolve as the thinking progresses. The design process employed in design thinking is exploratory
5 and emergent, and often problems are reframed by reflection-in-action. The processes involve working simultaneously at high levels of abstraction and
7 at the detailed level. Problems and solutions co-evolve.

Most designers are comfortable with ambiguity and uncertainty and
9 often work in an interdisciplinary fashion across knowledge domains. They have empathy for users. Visualization, drawings, prototyping and brain-
11 storming are practices commonly used by designers. Typically, designers work collaboratively in small project-based groups.
13 From this summary, it can be seen that some aspects of design thinking match the characteristics of action research and action learning. For
15 instance, action research is emergent by nature, effective in dealing with fuzzy situations, and cyclical. It exhibits empathy towards problem owners,
17 and is often carried out in small groups using reflection-in-action. Action learning includes critical reflection and insightful questioning to progres-
19 sively identify the real problem that the participants want to address.

21

7.3.3. Criticisms of Design Thinking

23

Although design thinking has found favour with organizations and
25 educational institutions, some have criticized it for being considered a panacea. There is a feeling among management scholars that design thinking
27 is still not well defined from their perspective. Liedtka and Mintzberg (2007) question whether there is even agreement on what design is.
29 Design thinking also faces resistance in organizations (Oster, 2008) as organizations often reject change, do not accept new ideas with open minds,
31 and often use a great deal of evaluation which is not conducive to design thinking. Oster (2008) cites Lojacono and Zaccai (2005) stating, 'Corporate
33 strategy is often shaped by macrodata — industry and trend analysis, competitive analysis, technology assessments, demographics — and carried
35 out by specialists focused on quarter-to-quarter sales, technical invention, measurable performance and operational efficiency' (p. 14). It would be very
37 difficult for design thinkers to cope with such stringent requirements. However, Oster (2008, p. 107) believes that design thinking can help
39 organizations achieve substantive gains in innovation and enjoy success in the dynamic global marketplace, if properly applied. Organizations such as
41 Apple, Procter and Gamble and IBM have profited from using design thinking and this has been reported in the literature. The Apple iPhone, for
43 instance, is often used as an example of the fruits of design thinking.

Design thinkers also feel that the concept of design thinking has been hijacked by management consultants. Badke-Schaub, Roozenberg and Cardoso (2010), quoting Tim Brown's contention that design thinking is valuable outside the so-called creative industries, feel that the new design thinking approach has left designers behind by focusing on the user. They argue that:

> Brown's (2009) new design thinking approach presents a prescriptive and even an idealistic view, which is ultimately formulated at a rather low-resolution level. The instructions are not empirically or theoretically supported; they are a generalization of his own experiences packed in a kind … of popularized management solving approach. (p. 43)

7.3.4. *Teaching Design Thinking to Managers*

Roger Martin, the dean of the Rotman School of Management at the University of Toronto, has begun teaching all of the school's students, as well as the broader organizational community, new ways to think about business, organizational and social challenges.

The late Peter Drucker's observation of what was going on at the Rotman School was that it 'may be the most important thing happening in education today' (Rotman, 2011). Other universities such as Stanford University in America and the University of Technology Sydney and Griffith University in Australia have started incorporating design thinking into their business courses to prepare managers for meeting future challenges. Practitioners are also teaching design thinking programmes for businesses and organizations in many countries around the world.

While design thinking is being adopted as a way of enhancing creativity and innovation in organizations, it is not the only way of facilitating more creative and emergent approaches to strategic planning and problem solving. The less convergent and linear and more divergent and iterative thinking, which design thinking represents, is common throughout the literature on creative thinking processes. Basadur (2004) tracks the evolution of models of creative thinking within organizations, from Wallas' (1926) AU :1 model through to the more recent work of Amabile (2010). Each offers a model similar to design thinking, based on problem identification, idea generation, solution assessment and implementation within a circular iterative process. Although some in the popular press have expressed concerns that design thinking may be another management fad, alongside total quality management and six sigma, we believe the fundamental processes and practices it represents have something to offer organizations needing to find new ways of doing things.

1 ## 7.4. Design Thinking, Action Research and Action Learning

3 In our review of the literature, we have found that some authors draw comparisons between action research and design thinking. Romme (2004)
5 argues that while action research does have a design orientation, it has largely used models from science and the humanities. Citing Boog (2003),
7 who states that 'action research is designed to improve the research subject's capacities to solve problems, develop skills (including professional skills),
9 increase their chances for self-determination, and to have more influence on the functioning and decision making processes of organizations and
11 institutions from the context in which they act' (p. 426), Romme (2004) argues that action researchers have not focused on designing and creating
13 actual change. Action researchers seem to follow the humanities model to find solutions tailored to local interests and contexts, neglecting the
15 pragmatic design orientation to finding new systems and practices. Romme (2004) concludes that 'action and design research are complementary tools.
17 Together, they stand a better chance to accomplish sustainable transformation and emancipation in social settings' (p. 498).

19 Tonkinwise (2010) aligns action research with design thinking by observing that, 'design thinking is foremost defined as the sort of action
21 research that comes from fail-friendly, iterative prototyping in context of immersive social research' (p. 381). Trullen and Bartunek (2007) state that
23 action research and design thinking have similarities, and that design approaches 'follow steps established in action research interventions — data
25 collection, diagnosis, planning, taking action, and evaluating needs which may lead to another cycle of action' (p. 33). They add that design appro-
27 aches follow a cycle of design, enactment, analysis and redesign. Also, in both action research and design approaches, researchers and designers work
29 collaboratively to produce designs that solve real problems.

31
7.4.1. Action Research

33
Sankaran, Tay, & Orr (2009) describe action research as: AU :2

35
> a process of collaborative enquiry carried out by people
37 > affected by a problem or concern, often using a cyclical
> process to increase their understanding of the real problem
39 > before moving towards a solution. The research process itself
> is emergent and responsive to the situation. AR often uses a
41 > variety of methods to converge towards a solution. People
> who participate in an AR process feel emancipated or
43 > liberated through the process. (p. 181)

1   Action research is often described as a four-stage cycle, in fact as a spiral
by Kemmis and McTaggart (1988), with the four stages being Plan, Act,
3 Observe and Reflect. And then, based on the final reflection stage, it moves
to the next cycle starting with planning as shown in Figure 7.2.
5   The action research cycle is similar to the design thinking cycle shown in
Figure 7.1. The *plan* stage can be compared to *generating ideas* (abduction)
7 stage. The *act* stage can be compared to the *test* stage. The *observe* and
reflect stages (which are sometimes combined in an action research cycle)
9 can be compared to the *generalize* (inductive) stage. The *predict
consequences* stage that is shown in the design thinking does not seem to
11 be a separate stage in the action research cycle.
    In practice, action researchers would probably plan expecting that certain
13 consequences would occur, and they would check whether this is true during
the 'observe and reflect' stages. One way of incorporating design thinking
15 into an action research cycle would be to make the formation of this
problem definition distinct by taking an abductive reasoning stance in the
17 planning stage. The front-end planning of an action research cycle could be
strengthened by adopting processes used by designers, including visualiza-
19 tion strategies.
    Prominent action researchers such as Greenwood (Greenwood & Levin,
21 2006) and Davies (Sankaran, Hase, Dick, & Davies, 2007) often include a
'search conference' workshop at the first planning cycle. A search conference
23 incorporates making issues visible during the conference to enable the
participants to discover 'common ground' (Weisbord, 1992). The primary
25 author of this paper has used search conferences, scenario planning exercises
(that look at models) and the drawing of 'rich pictures' (Checkland, 1999) to
27 visualize the multiple perspectives of the problem being addressed during
action research projects to good effect. Perhaps action researchers need to
29 learn more about visualization processes used by designers or have designers
facilitate such processes while conducting action research. The other
31 technique used by designers — rapid prototyping — can also be adopted
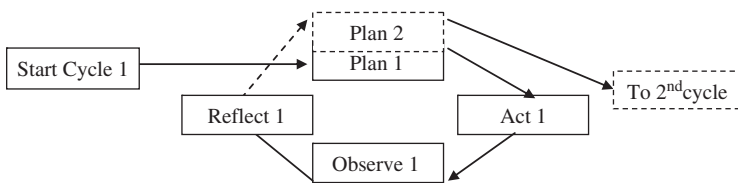by action researchers.
33

35

Figure 7.2: Action research spiral.
Source: Kemmis and McTaggart (1988).

1   *7.4.2.   Action Research/Learning and Creativity and Innovation*

3   In this chapter, design thinking is being suggested as a way in which managers can incorporate creativity and innovation to address strategic
5   issues faced by their organizations.

Zuber-Skerritt (2002) identifies creativity as one of the core values of
7   action learning and action research programmes, by stating that people engaging in such programmes should be willing to 'take risks, to be flexible
9   and innovative, and to encourage others to be likewise' (p. 149). Lumpkin (2005) discusses the role of organizational learning in the opportunity-
11   recognition process while engaging in entrepreneurial activities for strategic renewal. He discusses three approaches to organizational
13   learning — behavioural, cognitive and action learning — and states that action learning, as part of action enquiry, promotes 'real time' learning
15   through 'simultaneous reframing of personal belief and action that can transform the individual and the organization' (p. 455), and adds that
17   'action learning can challenge long-held patterns of belief and behaviour among executives to develop strategic competencies such as double loop
19   learning' (p. 462).

Haga (2005) discusses how action research approaches may contribute to
21   innovation. He suggests two approaches: a 'direct approach' where action research is used to '*create* an innovation or something new'; and an 'indirect
23   approach' to '*facilitate* co-generative training' (p. 363). Citing Greenwood and Levin (1998), he describes two examples from the development of a
25   regional partnership in the west coast of Norway to illustrate how these approaches were used.

27   Mulec and Roth (2005) reported the use of action research and action learning to enhance the performance of a project management team
29   involved in the research and development of a drug. They describe how using internal and external coaches working in pairs to coach global R&D
31   teams helped the teams develop 'interaction patterns supporting learning, creativity, change and innovation during the intervention' (p. 488).

33   Action research and action learning approaches are usually participative by their nature, fostering collaboration between the people who own the
35   problem being addressed. This brings us to discuss how collaboration can help to increase creativity in organizations.

37

39   **7.5.   Collaborative Creativity**

41   The increasing complexity of organizational challenges also means that the role of the solo creative genius in solving strategic challenges and pressing
43   problems or in coming up with the latest innovative breakthrough, although

1 still important, is decreasing (Fisher & Amabile, 2009). Increasingly, collaborative creativity and innovation are required to crack the wicked
3 problems that beset organizations. Collaboration and the harnessing of a broad range of diverse perspectives is central to design thinking
5 (Brown, 2008).

Beyond the realm of design and design thinking, collaboration has long
7 been considered to offer significant potential to contribute to innovation and complex problem solving within organizations and communities. Collabora-
9 tion, both between organizations and within organizations, can lead to greater innovation (Faems, Van Looy, & Debackere, 2005).
11 The Australian government, in a recent report into collaboration and innovation, not only saw innovation as critical to the sustained success of
13 the Australian and other global economies, but also identified collabora- tion as a key factor for successful innovation. It found that organizations
15 that exhibited collaboration were 70 per cent more likely to achieve creative innovation, and that 'diversity of collaboration is much more
17 important to achieving higher innovation novelty than intensity of collaboration' (Department of Industry Tourism and Resources, 2006,
19 p. viii).

Beyerlein, Beyerlein, and Kennedy (2006) acknowledge that collabora-
21 tion is becoming increasingly important in all six areas of innovation: products, services, processes, systems, strategies and organization. Further,
23 these collaborations need to take place up and down the supply chain. Von Hippel's (1988) work on the sources of innovation demonstrated more than
25 two decades ago that significant amounts of innovation are pushed from downstream or pulled from upstream in the supply chain. From this, it is
27 clear that not only does innovation require collaboration, but requires collaboration across and beyond organizational boundaries with diverse
29 stakeholders.

The reality, however, is that as many as 60 per cent of collaboration
31 efforts fail (Bleeke & Ernst, 1993; Harrigan, 1986, in Faems et al., 2005). According to Beyerlein et al. (2006), 'few companies have mastered the
33 discipline of collaboration well enough to achieve the highest levels of performance in these complex socio-political work situations' (p. xiv). Given
35 the inherent failure rates within innovation, the rate of successful collaborative innovation efforts is extremely low.
37 This is perhaps not surprising, given the complexity of the challenges being addressed and the complexity of the processes required to adequately
39 address them. Managing the group dynamics of such processes alone is extremely complex, particularly as stakeholder diversity increases. As
41 discussed in Chapter 5 of this book, progressively deeper levels of collaboration, in particular 'authentic collaborative interactions', can exist
43 and be achieved in action research type activities.

1 ### 7.5.1. *Facilitating Collaborative Innovation Processes*

3 Given the challenges inherent for people working together in groups, it is likely that skilled facilitation, leadership or coaching may be necessary to
5 foster both the group dynamics aspects of collaboration (West, 2002; West et al., 2003; Hackman & Wageman, 2005; Brown & Grant, 2010) and the
7 requisite process aspects of creativity and innovation for individuals and groups (Amabile, 1983; Amabile, Conti, Coon, Lazenby, & Herron, 1996;
9 Taggar, 2002), as well as other requisite processes and practices.
    Amabile's (2010) research provides a context for the type of leadership
11 required to create 'creative organizations'. Others (Kanter, 1983, 1988; Tesluk, Farr, & Klein, 1997) have specifically addressed the need for
13 leadership that is empowering, supportive and focused on motivation, commitment, collaboration and teamwork.
15   Matthew and Sternberg (2006) specifically address 'leading innovation through collaboration' which they conceptualize as 'a special case of leading
17 organizational change', requiring 'creative leadership skills applied to social systems' (p. 27). They find that the necessary leadership involves managing
19 paradoxes within a complex system and that, to be successful, leaders must have an understanding of the creativity and innovation process and its
21 environmental requirements.
    It is broadly accepted that most people do not realize their creative
23 potential and that the organizational environment and development activities can be designed to enhance the creativity and innovation of
25 organizational members (Matthew & Sternberg, 2006). Hackman (2002), in his work on group and team effectiveness, identifies the requirement for
27 leaders to provide 'expert coaching', clarifying goals, facilitating the process, developing norms and managing conflict as required.

29

31 ## 7.6. Coaching as an Enabler of Creativity and Innovation

33
Grant and Cavanagh (2007) see coaching and the psychology of coaching as
35 continuing to grow as platforms 'for facilitating individual, organizational and social change' (p. 239). They also see coaching as a vehicle for the
37 application of the emerging science of positive psychology, itself identified as an enabler of positive affect and creativity in individuals, groups and
39 organizations (Csikszentmihalyi, 1996, 1997; Frederickson, 2001; Lazarus, 2003; Losada & Heaphy, 2004; Linley, Joseph, Harrington, & Wood, 2006;
41 Seligman & Csikszentmihalyi, 2000). That is, there is a connection between coaching as an applied platform and positive psychology as the science of
43 optimal human functioning. Coaching and positive psychology, together,

1 have the potential to be enablers of positive growth, change, learning and creativity for individuals, groups and organizations.

3   One of the key distinctions between coaching and other modalities such as teaching, training or mentoring is that the coach is a facilitator of self-

5 directed learning. Whereas a mentor or teacher might instruct on how to complete a specific task or solve a particular problem, the coach assists and

7 supports a person to take greater personal responsibility to develop skills, knowledge or problem-solving capability where appropriate (Clutterbuk,

9 2007). The coach works to unlock an individual's potential to optimize their own creative problem solving, development and learning (Brown, 2011),

11 thereby better harnessing the individual's intrinsic motivation, a key antecedent for creativity (Amabile et al., 1996).

13   That coaching has become such an important and popular development tool is a testament to its potential to optimize the learning, growth and

15 change of individuals and groups within organizations, with an emerging evidence of flow-on effects to organizational performance and innovation

17 (Grant, Passmore, Cavanagh & Parker, 2010).

   The term *coaching* has traditionally been associated with the sporting

19 arena. Sir John Whitmore, originally a British motor racing champion and a leading pioneer of executive coaching, acknowledges inspiration from

21 Harvard lecturer and tennis expert Timothy Gallwey. Whitmore (2002) maintained that 'Gallwey had put his finger on the essence of coaching …

23 coaching is unlocking people's potential to maximize their own performance' (p. 10).

25   Drawing on a philosophy that Socrates espoused some 2000 years ago, coaching focuses on helping people to learn rather than teaching them. This

27 method removes the focus from the coach as a teacher or mentor with all of the expertise or answers, and instead focuses on harnessing the innate

29 capability and motivation within each individual, who then determines their own best way forward.

31

33 7.6.1. Group Coaching

35 The same coaching process can be applied within groups, and a number of coaching researchers and practitioners have proposed that group coaching is

37 better than the one-to-one dyadic coaching more common in organizations (Kets de Vries, 2005; Ward 2008; Brown & Grant, 2010). They point to the

39 greater systemic awareness, harnessing of a broader range of perspectives, generation of more creative solutions and enhanced commitment across

41 stakeholders to those solutions as some of the benefits of group coaching.

   Such processes have already been identified as critical to creative

43 outcomes with individuals (Amabile, 1983) and groups (Taggar, 2002).

1   Group coaching provides the framework for an external coach, an internal
leader or another innovation agent skilled in this process to foster
3   collaboration as well as creativity and innovation. Group coaching, we
believe, provides an optimal framework for integrating the various group
5   processes that foster creativity and innovation, a framework for 'integrating
group processes' identified as critical by West (2002).
7   In Brown and Grant (2010), a model of GROUP coaching that builds on
Whitmore's (2002) well-known GROW model of dyadic coaching for use in
9   the group setting was proposed by the second author of this chapter.
Brown's (2011) rationale for this was that

11

13   … despite considerable organizational development research
and practice suggesting that interventions in organizations
15   should also be targeted at the group level, most organizational
coaching is dyadic (one-to-one) and few models of group
17   coaching have been developed. (p. 30)

19   He argued that group coaching had important but under-used potential
as a means of creating goal-focused change in organizational contexts, and
21   proposed a practical model of GROUP coaching that integrates the well-
known GROW coaching framework with Scharma's U process (Scharma,
23   2007) for group dialogue, double-loop learning and other theoretically
grounded practices. A key benefit of group coaching identified is the greater
25   systemic awareness and, therefore, preparedness for change generated in the
group setting. The GROUP coaching framework is shown in Table 7.1.
27   To sum up, the GROUP coaching process provides a framework for
coaches to help them facilitate such processes. Commencing with the
29   definition of a *goal*, issue or desired state, the current *reality* is then explored
which acts as a gap analysis between where the group currently is and where
31   it desires to be. *Options* are then explored to address the gaps. The
understanding others stage is relevant throughout the whole process and
33   leverages group dialogue approaches to develop a shared group under-
standing. The final *performance* stage is where the best options are turned
35   into action plans for enactment within the system.
        In practice, the GROUP process is not as linear as it appears to be; the
37   group may move backwards and forwards between stages as required. For
example, following any stage it may become apparent that the goal or issue
39   being addressed needs clarifying or adapting. Each GROUP process is a
micro cycle in a larger macro process of subsequent sessions within an action
41   learning loop. The following session follows a process of REGROUP, where
the outcomes and processes are 'reviewed' and 'evaluated' before moving on
43   to develop further goals, options and actions.

Table 7.1: The GROUP coaching process.

Stage	Description	Example Questions
Goal	Group members are asked to clarify what they want to achieve from each session, determining the focus of coaching.	What do you want to achieve in this session? How would you like to feel afterwards? What would success look like?
Reality	Raising awareness of present realities. Examining how current situation is impacting on group's goals.	What is the current reality? How have you observed others' action? What is working? What is not working?
Options	Identifying and assessing available options. Encouraging solution-focused thinking and brainstorming.	What possible options do you have? What has worked for you in the past? What haven't you tried yet that might work?
Under-standing Others	Group members observe deeply, notice their internal responses to what is being said and make meaning of both what they hear and their internal response. The group connects to the emerging best future.	What is your view on the best options? What did you understand by her view? What was your internal dialogue when you were listening to that? Can you integrate the broader group perspective?
Performance	Assisting the group to determine next steps. Prototype best options. Developing individual and group action plans. Building motivation and ensuring accountability.	What is the most important thing to do next? What can be learnt from this prototype? What might get in the way? Who will be able to support you? How will you feel when this is done?

1

3

5

7

9

11

13

15

17

19

21

23

25

27

29

31

33

35

37

39

41

43

1   Extending on the GROUP process for specific use in creativity and innovation processes, we have further integrated this GROUP coaching
3 framework with Brown's (2008) design thinking process to develop a conceptual framework for coaching collaborative creativity and innovation
5 processes. The GROUP coaching model integrated with the design thinking phases is shown in Table 7.2.
7   Both the design thinking and GROUP coaching are iterative processes that move backwards and forwards between stages as required. Each iteration
9 forms part of a broader action research/learning cycle. Thus, within the 'issue' stage there might be a number of iterations of the group-coaching process to
11 define the innovation objective; within the 'inspiration' stage there would be a number of iterations as participants reflect on the current state of play and
13 look more broadly at the environment, and so forth.

15

7.6.2. *Micro Example*

19 As an example of the second author's work with organizational groups, he recently facilitated a one-day workshop with the operations leadership team
21 of a health-care company. There were nine leaders from various state offices, who each had their own localized models of operational best practice and a
23 significant amount of personal investment in their own way of doing things. The goal of the workshop was to consolidate towards one national model of
25 best practice, an objective that had been unsuccessfully attempted previously.
27   Before commencing, the coach explained the process that he would be using, educating the participants on group dialogue and coaching skills,
29 generative listening, balancing advocacy and enquiry and taking a solution focus. An exploration of the current 'reality' was followed by getting
31 participants from each state to talk about what they saw as their particular areas of best practice and how they saw an integrated approach coming
33 about. The other participants listened and enquired as appropriate, and the coach intervened only as required when he saw value to add. This stage took
35 the remainder of the session through to lunch. Following lunch, as options were explored, it was clear that a group understanding of the localized best
37 practices and how they could fit together into a unified national approach was forming. The coach facilitated the capture of the key actions on
39 flipcharts that were subsequently enacted.
    Feedback from the operations director was that the outcomes were
41 beyond expectations and that the individual best practices had been integrated in a way that was better than any of the independent approaches.
43 Additionally, the team continued to successfully use a similar process to

1 Table 7.2: Coaching collaborative creativity and innovation.

Design Stage	GROUP Model	Possible Questions
Issue	Goal	What is your goal? What are you trying to achieve?
		What would be the ideal outcome? (Miracle question)
		What does success look like? How will you feel?
Inspiration	Reality	What is the current reality? What is working?
		What have you tried? How did that go?
		What have you observed others doing?
Ideation	Options	What options have you considered? (Brainstorm)
		How could you think creatively to generate more options? (Use Creativity Tool Kit here)
(Across all stages)	Understanding others	What is your view on the best options?
		What did you understand by her/his view?
		What was your internal dialogue when you were listening to that?
		Can you integrate the broader group perspective?
Implementation	Performance	What are the individual and group actions?
		How committed are you?
		Who else can help/support etc.?
		Would a prototype help?
		What might get in the way
		How will you feel when you have achieved this?

address future issues and there was a sense that it had been a valuable process in terms of their leadership development. In this case, the process was only one iteration with the second author's involvement; the review and evaluation took place within the team.

7.7. Conclusions

In this chapter, we have argued that organizations will have to look for new ways of thinking to address the wicked problems they face in a complex global environment, where old ways of thinking and solutions may not be sufficient. One suggestion is to use the process of design thinking as a way of thinking more creatively and innovatively. We also discussed how action research and action learning could be incorporated as part of the new approaches to thinking by managers. We described a group coaching framework that can be used to facilitate creativity and innovation among managers incorporating the features of design thinking, action research and action learning. We have also suggested that action researchers incorporate some features of design thinking in their processes to become more relevant to organizations that are seeking new ways of thinking. It is hoped that this chapter has given the reader an insight into how action research and action learning can contribute to sustainable development in a turbulent world where organizations and managers are seeking new ways of addressing pressing problems.

Uncited Reference

Martin (2009c). AU :6

References

Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of Personality and Social Psychology*, *45*, 357–376.

Amabile, T. M. (2010). Interview with Prof. Teresa Amabile: *Creativity in the coming years. Dare to Care, Passion & Compassion in Management Practice & Research, Academy of Management*. Montreal: Academy of Management. Available at http://www.vigorinnovation.com/interview-with-prof-teresa-amabile-creativity-in-the-coming-years.

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of Management Journal*, *39*, 1154–1185.

Badke-Schaub, P., Roozenberg, N., & Cardoso, C. (2010). Design thinking: A paradigm on its way from dilution to meaninglessness? *Proceedings of the 8th Design Thinking Research Symposium (DTRS8)*, Sydney, 19–20 October (pp. 39–49).

Basadur, M. (2004). Leading others to think innovatively together: Creative leadership. *The Leadership Quarterly*, *15*, 103–121.

Beyerlein, M. M., Beyerlein, S. T., & Kennedy, F. A. (2006). *Innovation through collaboration*. Amsterdam: Elsevier.

Bleeke, J., & Ernst, D. (1993). *Collaborating to compete*. New York: Wiley.

Boog, B. (2003). The emancipator character of action research, its history and the present state of the art. *Journal of Community and Applied Psychology*, *13*, 426–438.

Brooks, F. P. (2010). *The design of design: Essays from a computer scientist*. Upper Saddle River, NJ: Addison Wesley.

Brown, T. (2008). Design thinking. *Harvard Business Review*, June, 84–92.

Brown, T. (2009). *Change by design: How design thinking transforms organizations and inspires innovation*. New York: Harper Business.

Brown, S. W., & Grant, A. M. (2010). From GROW to GROUP: Theoretical issues and a practical model for group coaching in organizations. *Coaching: An International Journal of Theory, Research and Practice*, *3*, 30–45.

Brown, S. W. (2011). Coaching in organizations: An introductory chapter. In N. Ferres, J. Connell & S. O'Toole (Eds.), *People development: Developing individuals, managers, and organizations*. Sydney: Tilde Publishing.

Camillus, J. (2009). Strategy as a wicked problem. *Rotman Magazine*, 29–33.

Carlopio, J. (2009). Creating strategy by design. *Design Principles and Practices: An International Journal*, *3*, 155–166.

Checkland, P. (1999). *Systems thinking, systems practice including a thirty year retrospective* (2nd ed.). Chichester: Wiley.

Clutterbuk, D. (2007). *Coaching the team at work*. London: Nicholas Brealey.

Crabtree, A. (2010). Ideas of Charles Sanders Peirce. Available at http://esalenctr.org/pdf/crabtree-peirce.pdf.

Cross, N. (2010). Design thinking as a form of intelligence. *Proceedings of the 8th Design Thinking Research Symposium (DTRS8)*, Sydney, 19–20 October (pp. 99–105).

Csikszentmihalyi, M. (1996). *Creativity, flow and the psychology of discovery and invention*. New York: Harper Perennial.

Csikszentmihalyi, M. (1997). *Finding flow: The psychology of engagement with everyday life*. New York: Basic Books.

Department of Industry Tourism and Resources. (2006). *Collaboration and other factors influencing innovation novelty in Australian businesses, an econometric analysis*. Canberra: Australian Government.

Dorst, K. (2010). The nature of design thinking. *Proceedings of the 8th Design Thinking Research Symposium (DTRS8)*, Sydney, 19–20 October (pp. 131–139).

Dunne, D., & Martin, R. (2006). Design thinking and how it will change management education: An interview and discussion. *Academy of Management Learning and Education*, *5*(4), 512–523.

Faems, D. F., Van Looy, B., & Debackere, K. (2005). Interorganizational collaboration and innovation: Toward a portfolio approach. *Journal of Product Innovation Management*, *22*, 238–250.

Fisher, C. M., & Amabile, T. M. (2009). Creativity, improvization and organizations. *Rotman Magazine*, 41–45.

Frederickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*, 218–226.

Grant, A. M., & Cavanagh, M. J. (2007). Evidence-based coaching: Flourishing or languishing? *Australian Psychologist*, *42*, 239–254.

AU :3

AU :4

Grant, A. M., Passmore, J., Cavanagh, M. J., & Parker, H. (2010). The state of play in coaching today: A comprehensive review of the field. *International Review of Industrial and Organizational Psychology*, *25*, 125–167.

Greenwood, D., & Levin, M. (1998). *Introduction to action research*. Thousand Oaks, CA: Sage.

Greenwood, D., & Levin, M. (2006). *Introduction to action research: Social research for social change* (2nd ed.). Thousand Oaks, CA: Sage.

Hackman, J. R. (2002). *Leading teams*. Cambridge: Harvard Business School Publishing.

Hackman, J. R., & Wageman, R. (2005). A theory of team coaching. *Academy of Management Review*, *30*, 269–287.

Haga, T. (2005). Action research and innovation networks, dilemmas and challenges: Two cases. *AI & Society*, *19*, 362–383.

Harrigan, K. R. (1986). *Managing for joint venture success*. Lexington: Lexington Books.

Kanter, R. M. (1983). *The change masters: Innovation for productivity in the American corporation*. New York: Simon & Schuster.

Kanter, R. M. (1988). When a thousand flowers bloom: Structural, collective and social conditions for innovation in organizations. In B. M. C. Straw (Ed.), *Research in organizational behavior* (pp. 169–211). Greenwich, CT: JAI Press.

Kemmis, S., & McTaggart, R. (Eds.). (1988). *The action research planner* (3rd ed.). Geelong, VT: Deakin University Press.

Kets De Vries, M. F. R. (2005). Leadership group coaching in action: The zen of creating high performance teams. *Academy of Management Executive*, *19*, 61–76.

Kimbell, L. (2009). Beyond design thinking: Design-as-practice and design-in-practice. *CRESC Conference*, Manchester, September. Available at http://www.design.org.br/artigos_cientificos/beyond_design_thinking.pdf

Lazarus, R. S. (2003). Does the positive psychology movement have legs? *Psychological Inquiry*, *14*, 93–109.

Liedtka, J., & Mintzberg, H. (2007). Time for design. *Rotman Magazine*, *Winter*, 24–29.

Linley, P. A., Joseph, S., Harrington, S., & Wood, A. M. (2006). Positive psychology: Past, present, and (possible) future. *The Journal of Positive Psychology*, *1*, 3–16.

Lockwood, T. (2010). *Design thinking: Integrating innovation, customer experience and brand value*. New York: Design Management Institute.

Lojacono, G., & Zaccai, G. (2005). The evolution of design-inspired enterprise. *Rotman Magazine*, *Winter*, 10–15.

Losada, M., & Heaphy, E. (2004). The role of positivity and connectivity in the performance of business teams: A nonlinear dynamics model. *American Behavioral Scientist*, *47*, 740–765.

Lumpkin, G. T. (2005). The role of organizational learning in the opportunity-recognition process. *Entrepreneurship Theory and Practice*, *29*(34), 451–472.

Martin, R. (2008). The design of business. *Rotman Magazine, Best of Rotman*, *2*, 10–13.

Martin, R. (2009a). Integrative thinking: A model takes shape. *Rotman Magazine: Best of Rotman*, *2*, 5–9.

Martin, R. (2009b). *The design of business: Why design thinking is the next competitive advantage*. Boston: Harvard Business Press.

Martin, R. (2009c). Wicked problems. *Rotman Magazine*, *Winter*, 3.

Matthew, C. T., & Sternberg, R. J. (2006). Leading innovation through collaboration. In M. M. Beyerlein, S. T. Beyerlein & F. A. Kennedy (Eds.), *Innovation through collaboration*. Amsterdam: Elsevier.

Mulec, K., & Roth, J. (2005). Action, reflection, and learning: Coaching in order to enhance the performance of drug development project management teams. *R&D Management*, *35*, 483–491.

Oster, G. W. (2008). Practitioners corner: Derailing design thinking. *International Journal of Leadership Studies*, *4*(1), 107–115.

Romme, A. G. L. (2004). Commentary: Action research, emancipation and design thinking. *Journal of Community and Applied Social Psychology*, *14*, 495–499.

Rotman (2011). Available at http://www.rotman.utoronto.ca/about/whatpeople say.htm.

Sankaran, S., Tay, B. H., & Orr, M. (2009). Managing organizational change by using soft systems thinking in action research projects. *International Journal of Managing Projects in Business*, *2*(2), 179–197.

Sankaran, S., Hase, S., Dick, B., & Davies, A. (2007). Singing different tunes from the same song sheet: Four perspectives of teaching the doing of action research. *Action Research*, *5*(3), 30–52.

Scharma, C. O. (2007). *Theory U: Leading from the future as it emerges. The social technology of presenting*. Cambridge: Society for Organizational Learning.

Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*, 5–14.

Taggar, S. (2002). Individual creativity and group ability to utilize individual creative resources: A multilevel model. *Academy of Management Journal*, *45*, 315–330.

Tesluk, P. E., Farr, J. L., & Klein, S. A. (1997). Influences of organizational culture and climate on individual creativity. *Journal of Creative Behavior*, *31*, 27–41.

Tonkinwise, C. (2010). A taste for practices: Unpressing style in design thinking. *Proceedings of the 8th Design Thinking Research Symposium (DTRS8)*, Sydney, 19–20 October (pp. 381–391).

Trullen, J., & Bartunek, J. M. (2007). What a design approach offers to organizational development. *The Journal of Applied Behavioural Science*, *43*(1), 23–40.

Von Hippel, E. (1988). *The sources of innovation*. New York: Oxford University Press.

Ward, G. (2008). Towards executive change: A psychodynamic group coaching model for short executive programs. *International Journal of Evidence Based Coaching and Mentoring*, *6*, 67–78.

Weisbord, M. R. (1992). *Discovering common ground: How future search conferences bring people together to achieve breakthrough innovation, empowerment, shared vision, and collaborative action*. San Francisco: Berrett Kohler.

West, M. A. (2002). Sparkling fountains or stagnant ponds: An integrative model of creativity and innovation implementation in work groups. *Applied Psychology: An International Review*, *51*, 355–424.

West, M. A., Borrill, C. S., Dawson, J. F., Brodbeck, F., Shapiro, D. A., & Haward, B. (2003). Leadership clarity and team innovation in health care. *The Leadership Quarterly*, *13*, 393–410.

Whitmore, J. (2002). *Coaching for performance: Growing people, performance and purpose*. London: Nicholas Brealey.

Zuber-Skerritt, O. (2002). A model for designing action learning and action research programs. *The Learning Organization*, *9*(4), 143–149.

AUTHOR QUERY FORM

Dear Author,

During the preparation of your manuscript for typesetting, some questions may have arisen. These are listed below. Please check your typeset proof carefully and mark any corrections in the margin of the proof or compile them as a separate list.

Disk use
Sometimes we are unable to process the electronic file of your article and/or artwork. If this is the case, we have proceeded by:

☐ Scanning (parts of) your article   ☐ Rekeying (parts of) your article

☐ Scanning the artwork

Bibliography
If discrepancies were noted between the literature list and the text references, the following may apply:

☐ **The references listed below were noted in the text but appear to be missing from your literature list. Please complete the list or remove the references from the text.**

☐ *UNCITED REFERENCES:* **This section comprises references that occur in the reference list but not in the body of the text. Please position each reference in the text or delete it. Any reference not dealt with will be retained in this section.**

Queries and/or remarks

Location in Article	Query / remark	Response
AU:1	Wallas (1926) has been cited in the text but not included in the reference list.	
AU:2	Sankaran, Tay, & Orr (2010) has been changed to (2009) as per the reference list.	
AU:3	Please provide volume number in Brown (2008).	
AU:4	Please provide volume number in all references from Rotman Magazine.	
AU:5	Please provide complete details in Rotman (2011).	

AU:6	Please provide text citation for the reference "Martin (2009c)". If no citation is available, the reference should be deleted from the reference list.	